

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)
2. (Cancelled)
3. (Currently Amended) The method of claim 234, wherein the biomolecules are amine-functionalized or amine-containing biomolecules.
4. (Currently Amended) The method of claim 42, wherein the oxide surface comprises a silicon oxide.
5. (Original) The method of claim 4, wherein the oxide surface comprises silica, glass or quartz.
6. (Currently Amended) The method of claim 49, wherein the oxide surface comprises a metal oxide.
7. (Original) The method of claim 6, wherein the metal oxide comprises a native oxide of stainless steel.
8. (Currently Amended) The method of claim 49, wherein the plasma is formed from a source gas comprising water, oxygen or a mixture thereof.
9. (Previously Presented) A method of treating a surface of a substrate, the method comprising:
 - (a) forming hydroxyl groups on an oxide surface by exposing the oxide surface to a plasma;
 - (b) reacting epoxy groups on epihalohydrin molecules with the surface hydroxyl groups *in situ* in the absence of plasma and in the absence of acid and base catalysts to provide a functionalized surface; and
 - (c) exposing the functionalized surface to vacuum *in situ* to provide epoxy-terminated, surface-bound spacer chains.

10. (Original) The method of claim 9, wherein the epihalohydrin molecules are epichlorohydrin molecules.

11. (Cancelled)

12. (Cancelled)

13. (Currently Amended) The method of claim 234, wherein the biomolecule is selected from the group consisting of oligonucleotides, aptamers, cDNA and RNA.

14. (Currently Amended) The method of claim 234, wherein the biomolecule is a protein.

15. (Cancelled)

16. (Currently Amended) The method of claim 4535, wherein the spacer molecules comprise an amine group capable of reacting with the epoxy functionality of the spacer chains.

17-33. (Cancelled)

34. (Previously Presented) The method of claim 9, further comprising immobilizing biomolecules on the oxide surface by reacting the biomolecules with the oxide surface-bound spacer chains.

35. (Previously Presented) The method of claim 9, further comprising extending the spacer chains by reacting the spacer chains with gas-phase spacer molecules *in situ* in the absence of plasma to provide extended spacer chains.